

CLAIM AMENDMENTS

Please amend claims 1, 11, 19, 21, 23, 25, and 27-28 as follows.

1. (Currently Amended) A method, comprising:
activating a management mode of operation of a processor on a processing blade, the processing blade included within a blade server;
using a software proxy layer in a firmware unit to emulate a baseboard management controller and to interact with a management module of the blade server during the management mode of operation to manage operation of the processing blade, wherein the firmware unit having the software proxy layer is included in the processing blade; and
deactivating the management mode of operation of the processor using a management mode interrupt handler.
2. (Original) The method of claim 1 wherein the management mode of operation of the processor is transparent to a pre-boot runtime of the processor and to an operating system runtime of the processor.
3. (Original) The method of claim 2 wherein the management mode of operation of the processor is further transparent to an operating system load sequence.
4. (Original) The method of claim 2 wherein activating the management mode of operation of the processor comprises activating the management mode of operation in response to a software entity executed by the processing blade.
5. (Original) The method of claim 2 wherein:
activating the management mode of operation comprises saving state information of the processor and saving an execution location of the processor prior to entering the management mode of operation, and

deactivating the management mode of operation comprises exiting the management mode of operation, loading the saved state information into the processor, and returning the processor to the saved execution location.

6. (Original) The method of claim 2 wherein the management mode of operation comprises one of a system management mode (“SMM”) and a platform management mode (“PMM”).

7. (Original) The method of claim 1, further comprising:

activating a plurality of management modes of operation of a corresponding plurality of processing blades of the blade server in response to a corresponding plurality of software entities executing on each of the processing blades;

interacting with the management module of the blade server during each of the plurality of management modes of operation to manage operation of each of the plurality of processing blades; and

deactivating the plurality of management modes of operation.

8. (Original) The method of claim 7 wherein:

activating the plurality of management modes of operation comprises activating each one of the plurality of management modes of operation of each of the plurality of processing blades at an independent time, and

deactivating the plurality of management modes of operation comprises deactivating each one of the plurality of management modes of each of the plurality of processing blades at an independent time.

9. (Original) The method of claim 1 wherein interacting with the management module includes at least one of coordinating with the management module for access to shared resources of the blade server, reporting system errors to the management module, and coordinating fault resilient booting with the management module.

10. (Original) The method claim 9 wherein the shared resources include at least one of a floppy drive, a compact disc read only memory (“CD-ROM”) drive, a DVD-ROM drive, a serial port, a parallel port, a universal serial bus port, a monitor, a keyboard, and a mouse.

11. (Currently Amended) A machine-accessible medium that provides instructions that, if executed by a machine, will cause the machine to perform operations comprising:

activating a management mode of operation of a processing blade of a blade server;

using a software proxy layer in a firmware unit to emulate a baseboard management controller and to interact with a chassis management module (“CMM”) of the blade server during the management mode of operation to manage operation of the processing blade wherein the firmware unit having the software proxy layer is included in the processing blade; and

deactivating the management mode of operation using a management mode interrupt handler.

12. (Original) The machine-accessible medium of claim 11, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the management mode of operation of the processing blade is transparent to a pre-boot runtime of the processing blade and to an operating system runtime of the processing blade.

13. (Original) The machine-accessible medium of claim 12, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the management mode of operation of the processing blade is further transparent to an operating system load sequence.

14. (Previously Presented) The machine-accessible medium of claim 12, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein:

activating the management mode of operation of the processing blade comprises activating the management mode of operation in response to a software entity stored in or on the firmware unit executing on the processing blade.

15. (Original) The machine-accessible medium of claim 12, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein:

activating the management mode of operation comprises saving state information of a processor of the processing blade and saving an execution location of the processor prior to entering the management mode of operation, and

deactivating the management mode of operation comprises exiting the management mode of operation, loading the saved state information into the processor, and returning the processor to the saved execution location.

16. (Original) The machine-accessible medium of claim 12, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the management mode of operation comprises one of a system management mode (“SMM”) and a platform management mode (“PMM”).

17. (Previously Presented) The machine-accessible medium of claim 11, further providing instructions that, if executed by the machine, will cause the machine to perform operations comprising:

activating a plurality of management modes of operation of a corresponding plurality of processing blades of the blade server in response to a corresponding plurality of software entities stored in or on a corresponding plurality of firmware units executing on each of the processing blades;

interacting with the CMM of the blade server during each of the plurality of management modes of operation to manage operation of each of the plurality of processing blades; and

deactivating the plurality of management modes of operation.

18. (Original) The machine-accessible medium of claim 11, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein:

interacting with the CMM includes at least one of coordinating with the CMM for access to shared resources of the blade server, reporting system errors to the CMM, and coordinating fault resilient booting with the CMM.

19. (Currently Amended) A processing blade, comprising:
a processor to execute instructions;
a communication link communicatively coupled to the processor, the communication link to communicatively couple to a chassis management module (“CMM”) of a blade server; and
a firmware unit having a software proxy layer communicatively coupled to the processor ~~and having stored therein a virtual management controller (“VMC”), the processor to execute the VMC, the VMC, the software proxy layer~~ to emulate a baseboard management controller and to communicate with the CMM during a management mode of operation of the processor to coordinate operation of the processing blade with the CMM.
20. (Original) The processing blade of claim 19 wherein the management mode of operation of the processor is transparent to a pre-boot runtime of the processor and to an operating system runtime of the processor.
21. (Currently Amended) The processing blade of claim 20 wherein the [[VMC]] firmware unit is to perform at least one of coordinating with the CMM for access to shared resources of the blade server, reporting system errors to the CMM, and coordinating fault resilient booting with the CMM.
22. (Original) The processing blade of claim 21 wherein the shared resources include at least one of a floppy drive, a compact disc read only memory (“CD-ROM”) drive, a DVD-ROM drive, a serial port, a parallel port, a universal serial bus port, a monitor, a keyboard, and a mouse.
23. (Currently Amended) The processing blade of claim 21 wherein the [[VMC]] firmware unit to be invoked by a software entity executing on the processing blade, the software entity to invoke the [[VMC]] firmware unit to request access to at least one of the shared resources of the blade server.
24. (Original) The processing blade of claim 20 wherein the management mode of operation comprises one of a system management mode (“SMM”) and a platform management mode (“PMM”).

25. (Currently Amended) A blade server, comprising:
a chassis having a chassis management module (“CMM”); and
a plurality of processing blades supported within the chassis, each of the plurality of processing blades communicatively coupled to the CMM, each of the plurality of processing blades comprising:
a processor to execute instructions;
a communication link communicatively coupled to the processor, the communication link communicatively coupled to the CMM; and
a flash memory unit communicatively coupled to the processor and having stored therein a ~~virtual management controller (“VMC”), the processor to execute the VMC, the VMC~~ firmware unit having a software proxy layer, the software proxy layer to emulate a baseboard management controller and to communicate with the CMM during a management mode of operation of the processor to coordinate operation of each of the plurality of processing blades with the CMM.
26. (Original) The blade server of claim 25 wherein the management mode of operation of the processor is transparent to a pre-boot runtime of the processor and to an operating system runtime of the processor.
27. (Currently Amended) The blade server of claim 26 wherein the [[VMC]] firmware unit of each of the plurality of processing blades is to perform at least one of coordinating with the CMM for access to shared resources of the blade server, reporting system errors to the CMM, and coordinating fault resilient booting with the CMM.
28. (Currently Amended) The blade server of claim 27 wherein the processor of each of the plurality of processing blades activates the management mode of operation to execute the [[VMC]] firmware unit in response to a software entity, the software entity to trigger activation of the management mode of operation to request access to at least one of the shared resources.

29. (Original) The blade server of claim 28 wherein the shared resources include at least one of a floppy drive, a compact disc read only memory (“CD-ROM”) drive, a DVD-ROM drive, a serial port, a parallel port, a universal serial bus port, a monitor, a keyboard, and a mouse.

30. (Original) The blade server of claim 25 wherein the management mode of operation comprises one of a system management mode (“SMM”) and a platform management mode (“PMM”).